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# iQue™ - A/VTs (iQue™-Vision)

## Portable / Wireless Connection to a Unix Server (Fig.4)

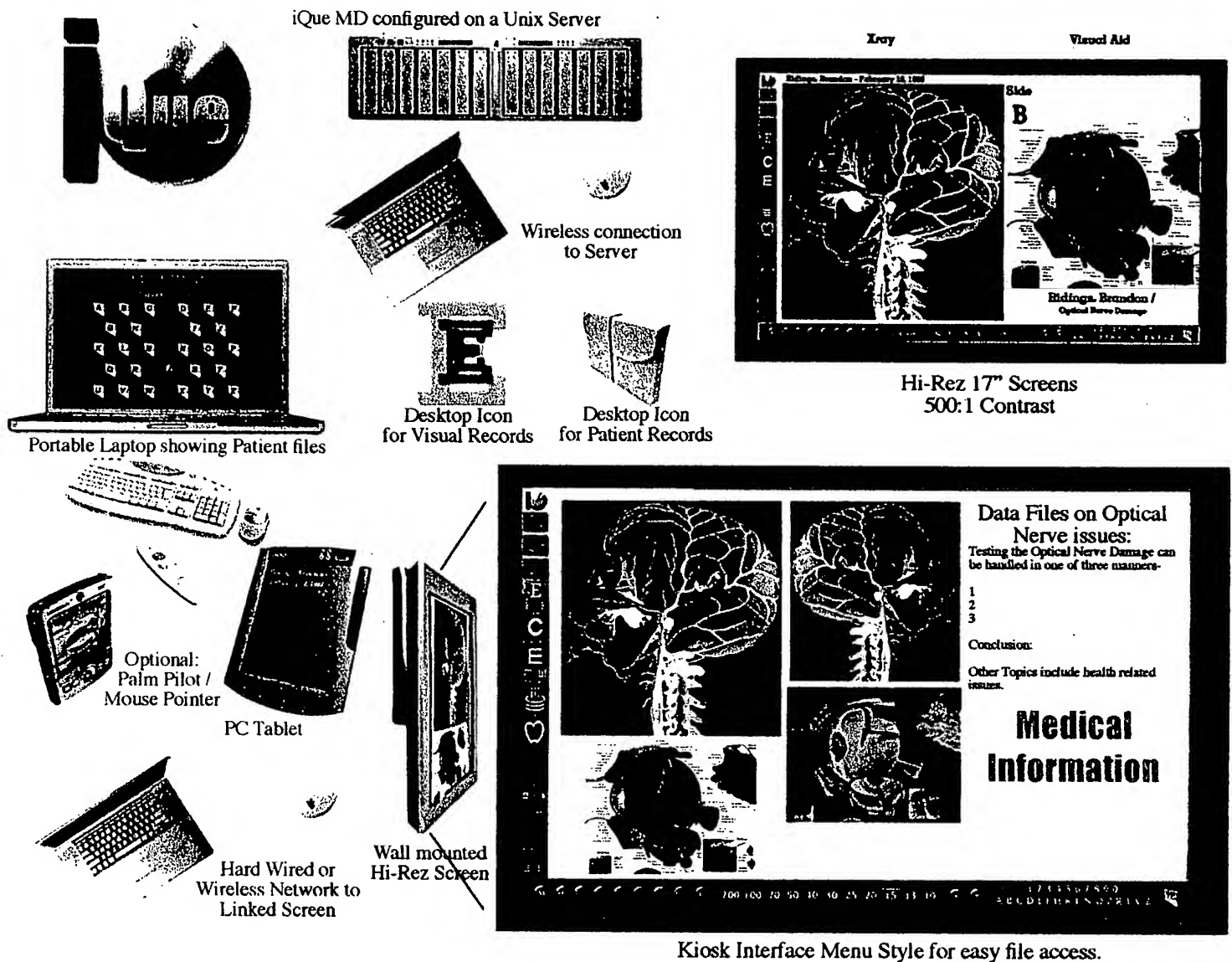


Figure 4 - Another unique feature that sets the iQue-A/VTs apart is the portable connection a doctor can have to the server. This configuration includes a Laptop, Palm Pilot, and PC Tablet. The wireless connection is not limited to just the portable architecture. It can also be used with any other computer system configured with either 802.11b or 802.11g wireless cards. Choosing either icon on the main menu, Vision Testing or Patient Records, the doctor would be able to call up any number of visual aids, reference material or patient records to help in the examination process. The screen on the laptop show what a doctor would see with trying to locate a patients file using the alphabetical listings. This system also lends itself to be used with a Keyboard/Mouse, Palm Pilot, Mouse Pointer with a hard wired or wireless connection to a Hi-Rez display screen in the same exam room.

# iQue™ - A/VTs (iQue™-Vision)

## Multiple Operating Systems on a Unix Server (Fig.3)

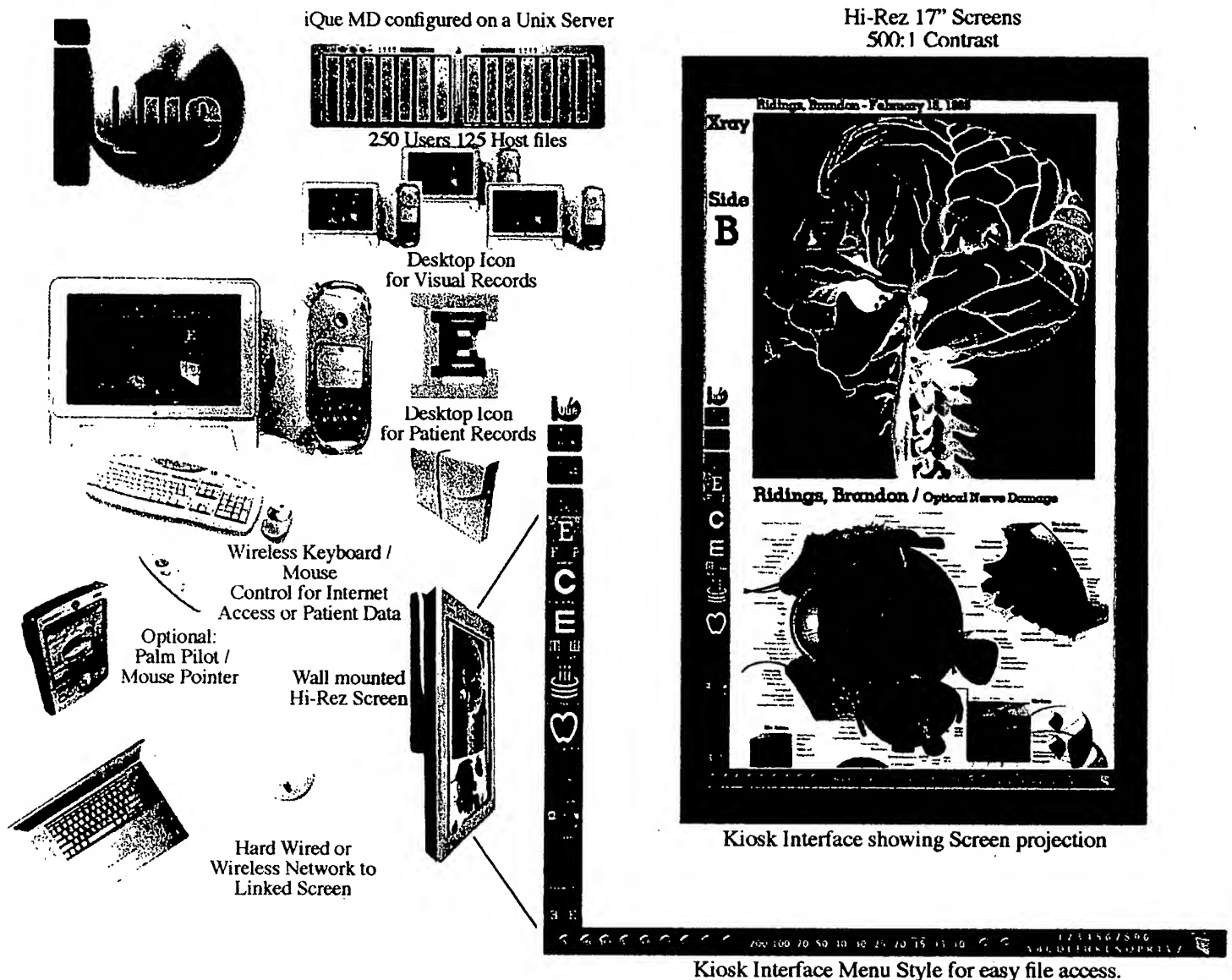


Figure 3 - One of the main features of the iQue-A/VTs are the total number of computers that can be linked to the same Unix Server system. This system give access to 250 workstations while hosting 125 database files. This expendability with multiple operating systems clearly sets it apart from other Medical Database system. Choosing either icon on the main menu, Vision Test-ing or Patient Records, the doctor would be able to call up any number of visual aids, reference material or patient records to help in the examination process. This system also lends itself to be used with a Keyboard/Mouse, Palm Pilot, Mouse Pointer or portable laptop with a hard wired or wireless connection to a Hi-Rez display screen in the same exam room.

# iQue™ - A/VTS (iQue™ Vision)

## Stand Alone Configuration

(Fig.1)

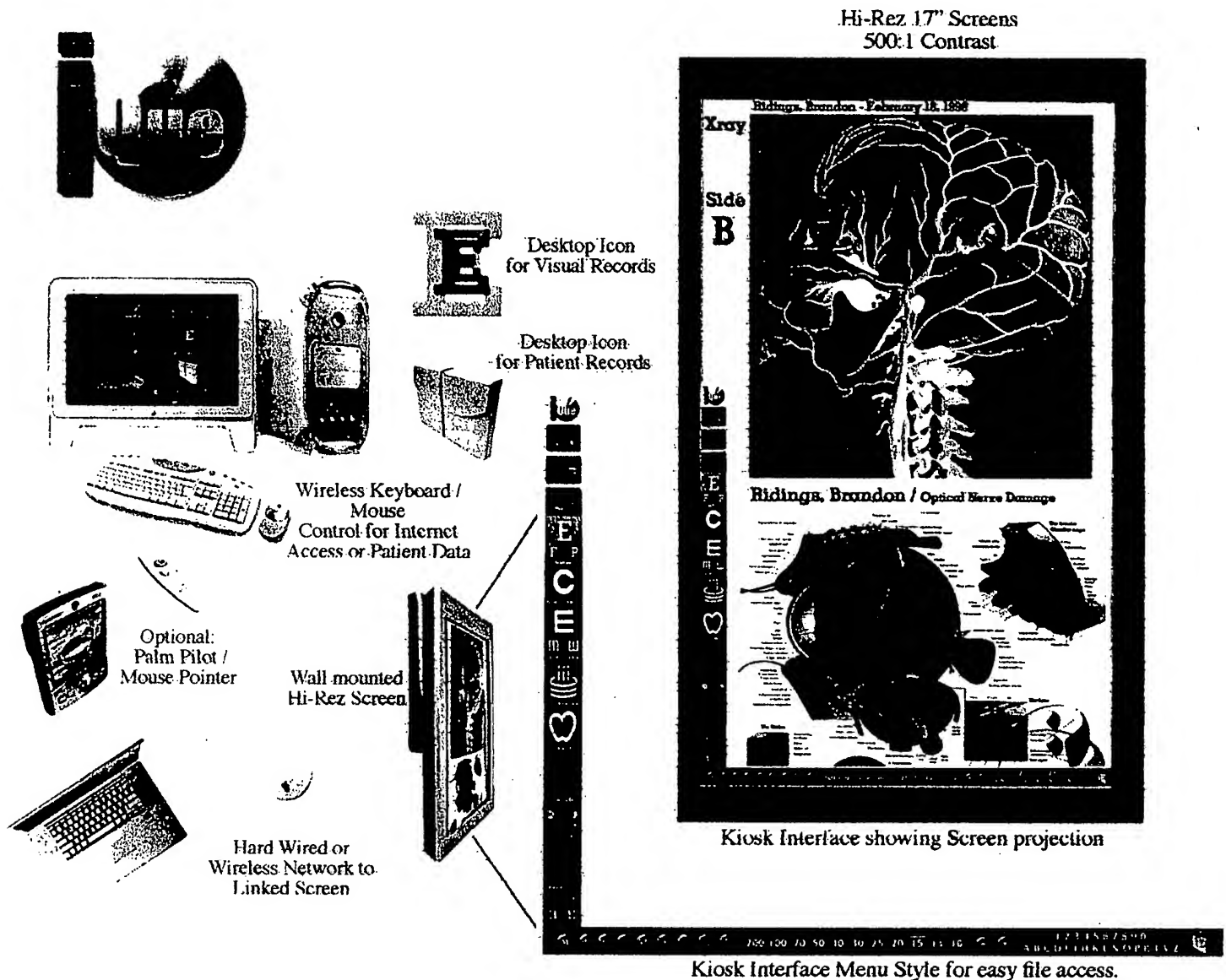


Figure 1 - Using the iQue-A/VTS a "Stand-Alone" Product a Doctor using a Unix based computer would access the files using the kiosk system. Choosing either icon, Vision Testing or Patient Records, the doctor would be able to call up any number of visual aids, reference material or patient records to help in the examination process. This system also lends itself to be used with a Keyboard/Mouse, Palm Pilot, Mouse Pointer, portable laptop or tablet pc with a hard wired or wireless connection to a Hi-Rez display screen in the same exam room.

# iQue™ - A/VTs (iQue™-Vision)

## Multiple Operating Systems on a Unix Server

(Fig.2)

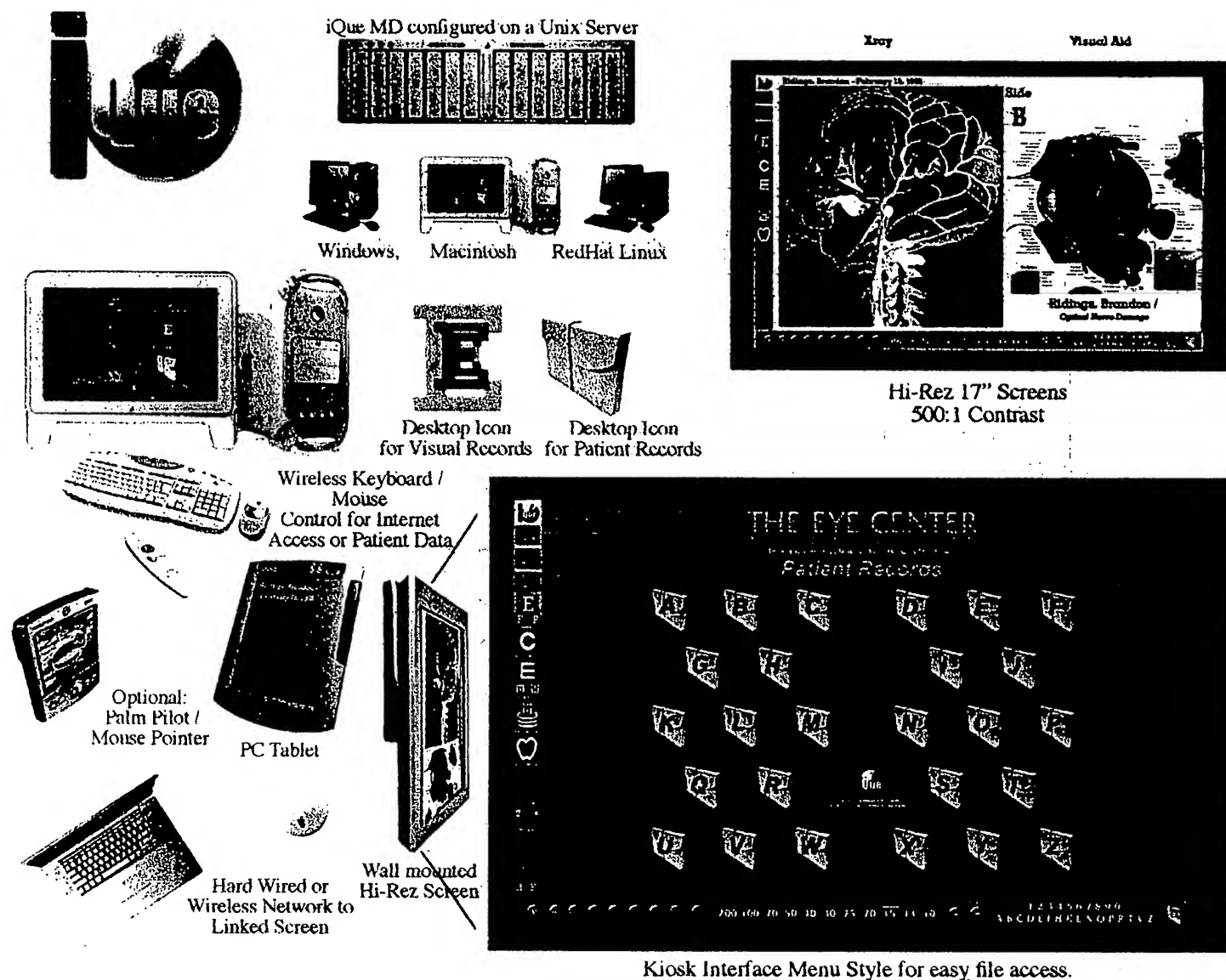
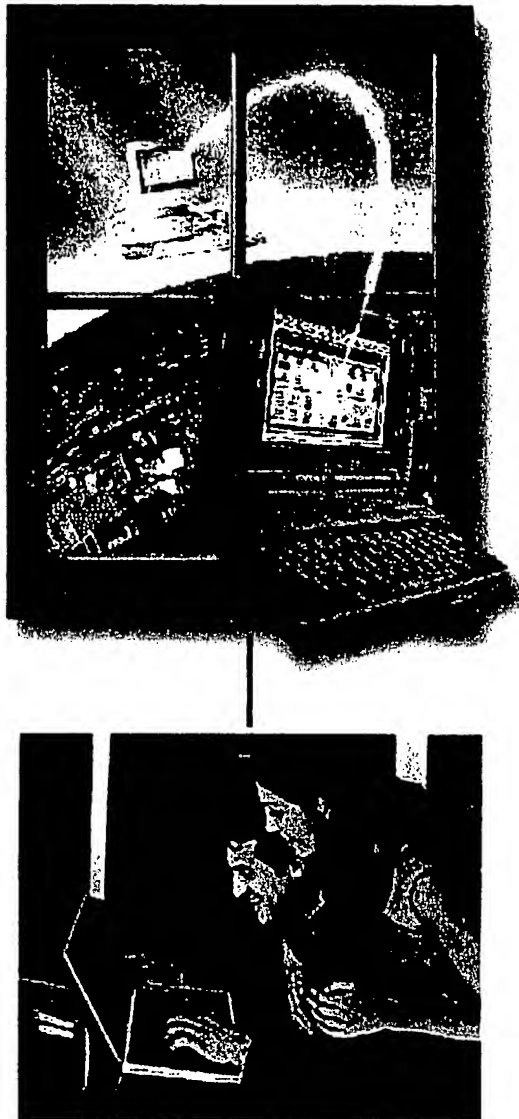


Figure 2 - Using the iQue-A/VTs does not lock the user into one computer system. Using a Unix based server the same files can be access with either Windows, Macintosh or RedHat Linux. The end user now has a choice of personal taste or customization. This means that any of these computer systems, Macintosh, Windows or RedHat Linux with the right specification, can now access the same files at the same time all on the same network. Choosing either icon on the main menu, Visual Records or Patient Records, the doctor would be able to call up any number of visual aids, reference material or patient records to help in the examination process. This system also lends itself to be used with a Keyboard/Mouse, Palm Pilot, Mouse Pointer or portable laptop with a hard wired connection or a wireless connection to a Hi-Rez display screen in the same exam room.

# iQue™ - A/VTs (iQue™-Vision)

## Internet Based Home Therapy System

(Fig.5)



### Using any Internet Browser:

A patient can access simple therapy test as long as the monitor meets resolution and size requirements

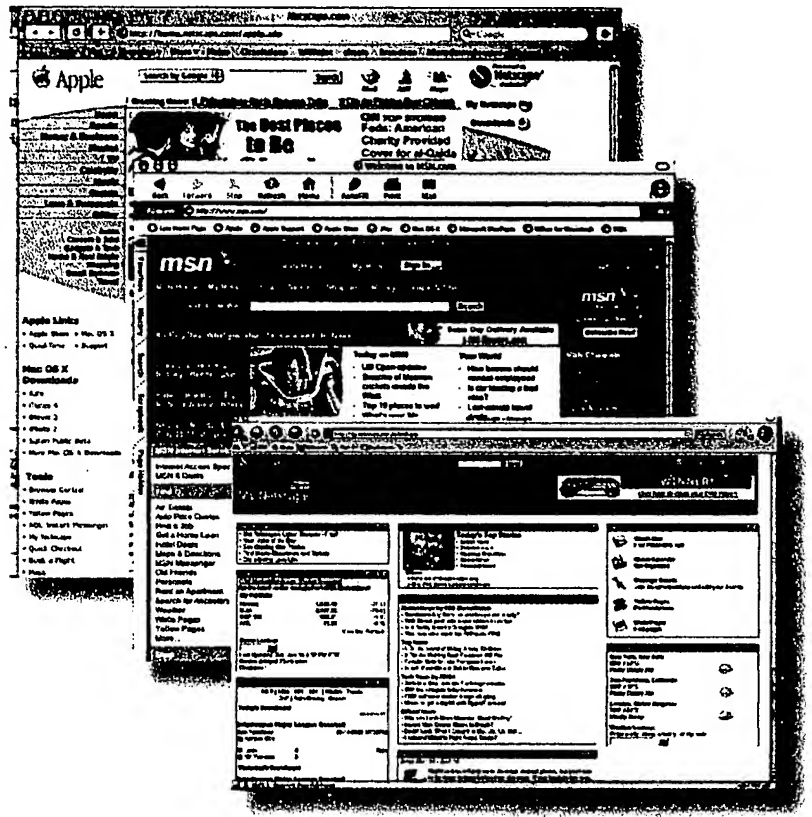
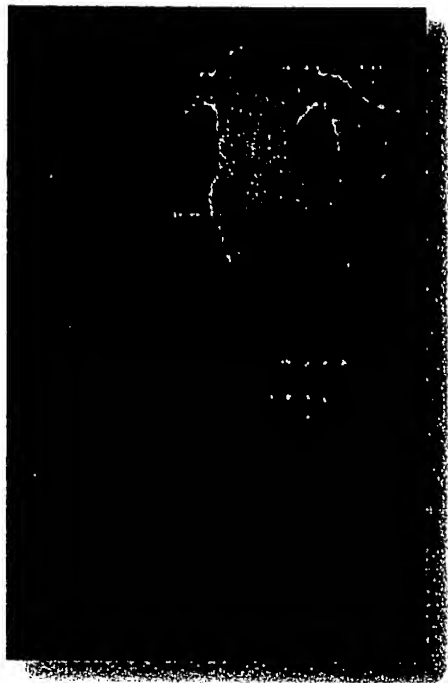


Figure 5 - Another unique feature that sets the iQue-A/VTs apart is the new internet Home Therapy System. Using this configuration and any one of the standard web based browser technologies, a doctor if needed could have a patient log on and perform a list of daily, weekly, or monthly therapy sessions via the instructions that were posted. Having done the prescribe therapy sessions the doctor could monitor the results with a report that could be access to show what the patient had accomplished by logging on. It could be something as simple as eye movement exercises with a verity of tests. After each test the system would automatically log what tests had been done, how long it took and when. It could also be something in the way of instructions on muscle moment therapy or anything the doctor felt the patient required for a better recovery.

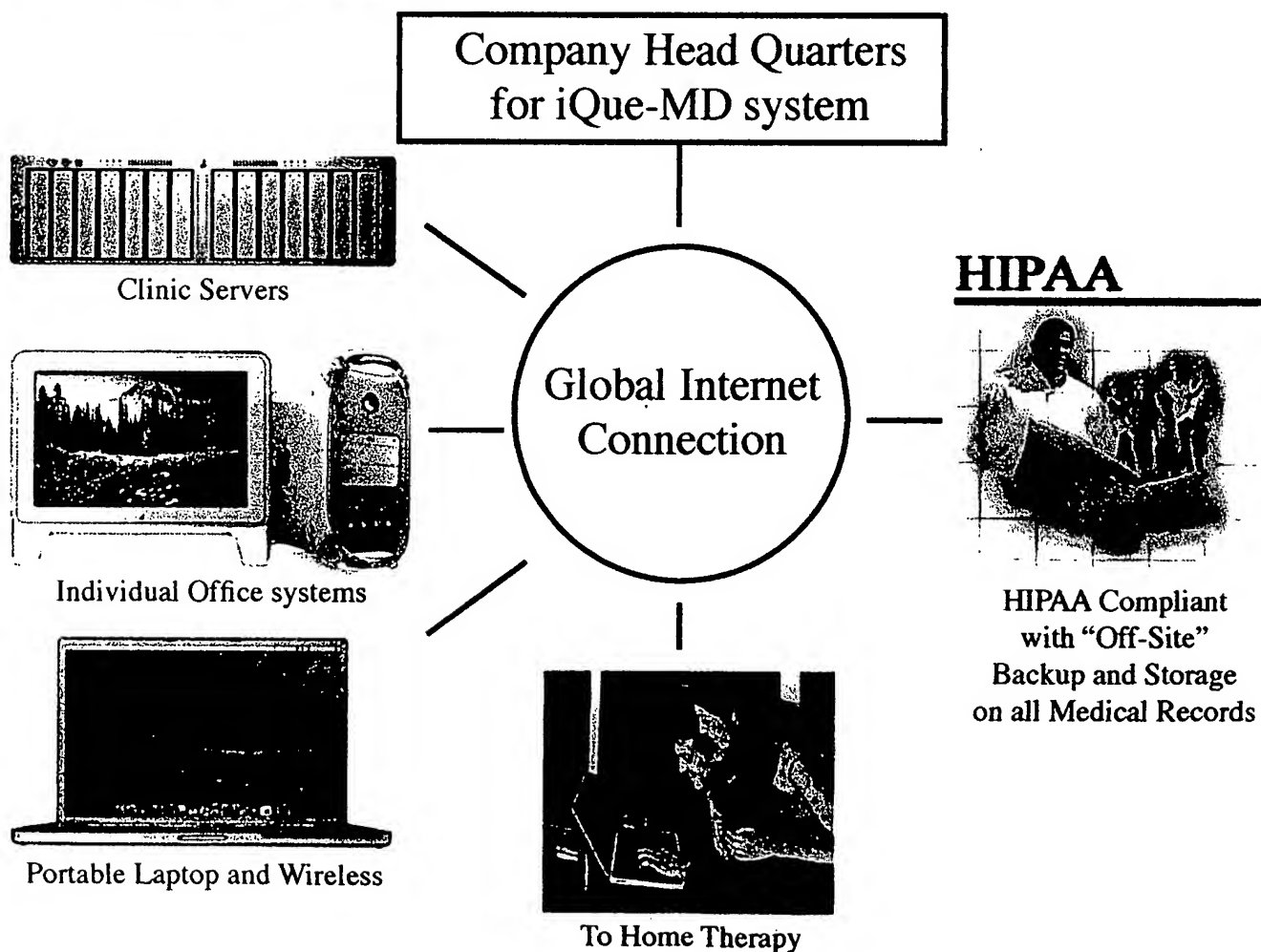
# iQue™ A/VTS (iQue™ Vision)

## Unix Server Benefits and Connections (Fig.6)



### Services offered on the Server:

- Server Maintenance (Contract Basis)
- Up Grades to system software
- Ordering and Downloading Test
- Information on new tests
- Electronic Patient Records
- Patient Photos and progress images
- Data Base Storage & Backup
- Home Therapy access
- Patient Education on products
- Doctors Reference Materials
- HIPAA Compliant

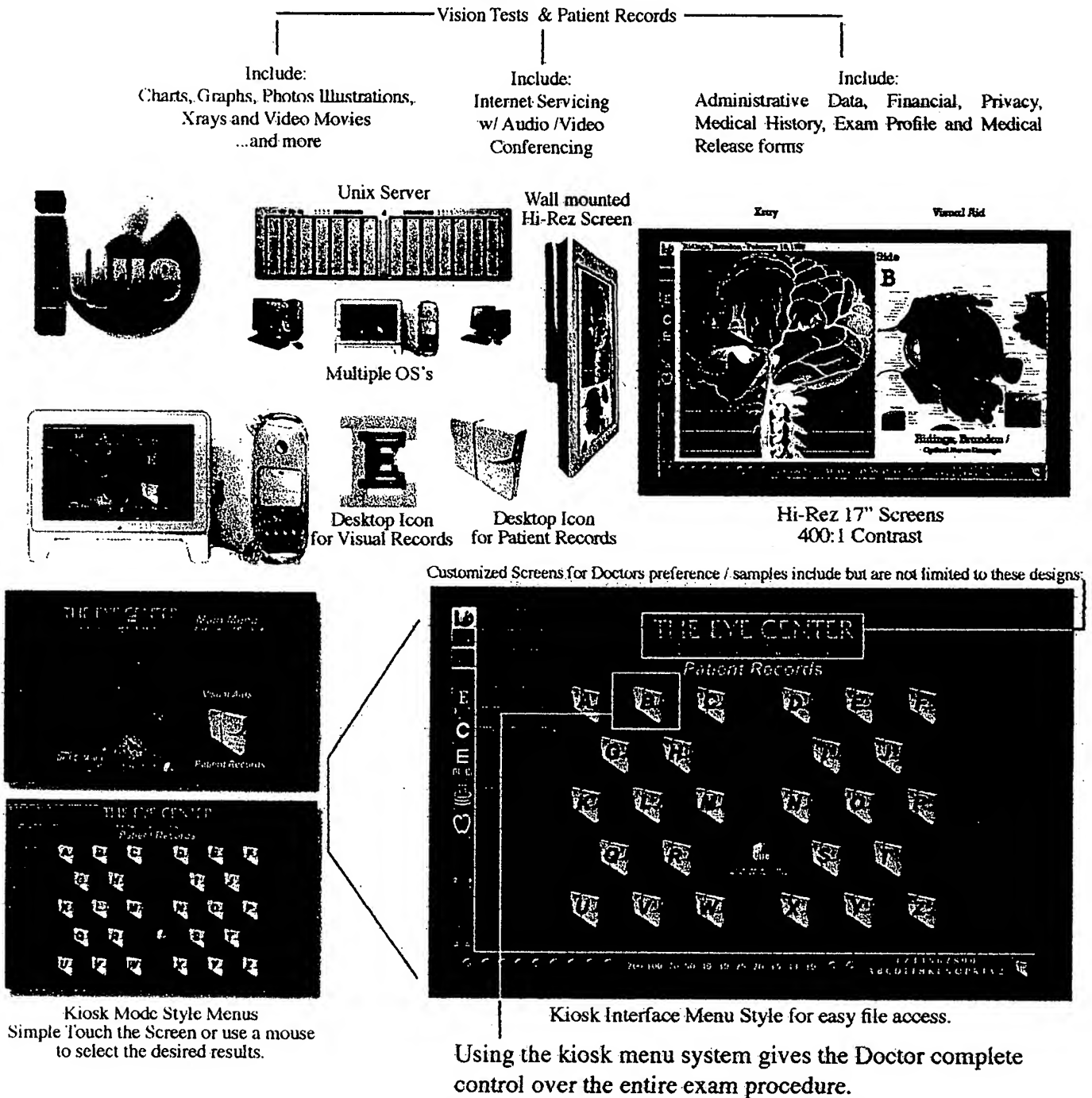




# iQue™ A/VTS (iQue™ Vision)

## Functionality & Menu Control

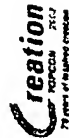
(Fig. 7)  
Main Menu



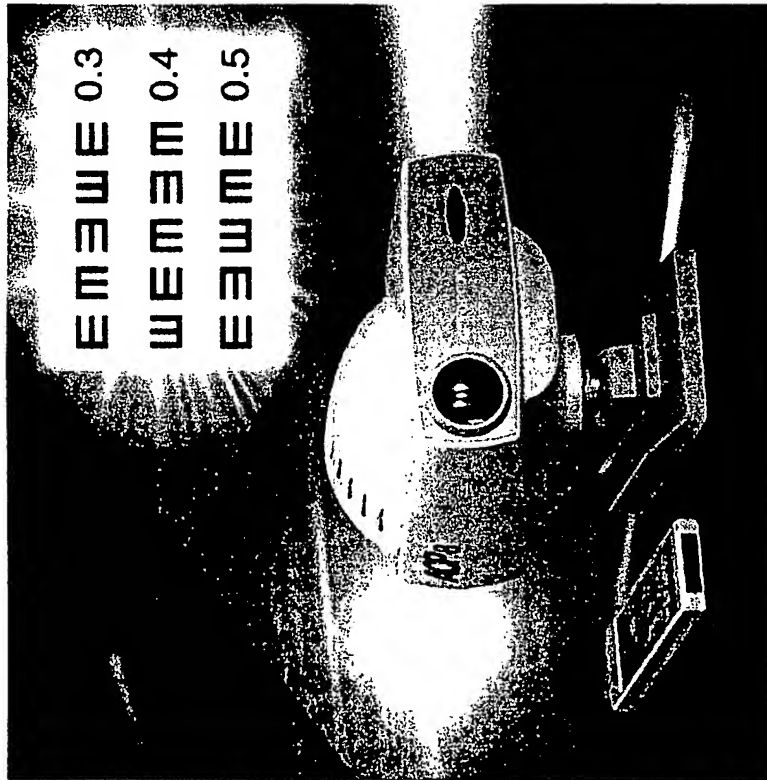
The applications can be customized for areas of interest that include, but are not limited to: All of the tests would be either animated or slide form in such a way as to provide a more educational, entertaining and comprehensive test than could ever be achieved with any other medium. New testing applications can be customized for areas of interest that include, but are not limited to: pediatric vision testing, general vision testing (adult and child), low vision testing (adult and child), sports vision testing (adult and child), acuity screening (adult and child) and home therapy (adult and child). Specialized testing will include: stereo testing / color testing / hue testing - D15 / neutral density testing / variable & non variable VetroGrams / depth perception with 3D stereo testing / visual game testing via computer and HTML/XML and any other visual testing system that can be animated in design and implemented onto the iQueVision: Animated - Vision Testing System. With the iQueVision: Animated - Vision Testing System, any doctor that purchases this system can administer a number of technically accurate and animated vision tests at the push of a remote control touch screen (kiosk), Keyboard/mouse or PDA button.



# TOPCON

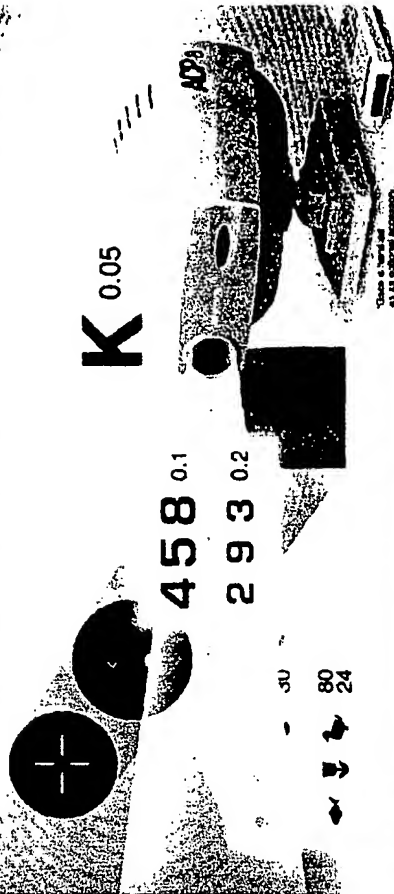


AUTO CHART PROJECTOR  
**ACP-8** NEW



## VERSATILE... QUICK... CONVENIENT... FUNCTIONAL

The TOPCON ACP-8 VARIABLE Auto Chart Projector provides improved sharp and clear image projection and fast chart rotation. A cordless remote controller allows instant projection of the 30 test charts at a rate of 0.03 seconds per frame. In addition, the ACP-8 can offer 3 x 5 character charts with a wide projection size (330 x 270) for fast and efficient testing.



### Features

#### ● Coupled with CV-3000

The ACP-8 CV-3000 can be remote controlled directly with the TOPCON Charge Vision CV-3000 remote controller. This combination allows the operator to quickly and easily access all functions for general test construction.

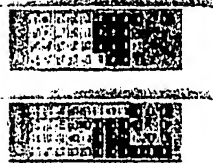


#### ● Program Settings

The ACP-8 CV-3000 can be programmed to project a specific sequence of charts for maximum flexibility and reduce start time.

#### ● Single Character Masking

The versatile masking capabilities of the ACP-8 CV-3000 allow projection of a single character at a time.



#### ● Easy Setup and Maintenance

It is very easy to replace the bulb. You needn't adjust the position and focus of the bulb after replacement.

#### ● Tilt Function

The horizontal axis of the projector can be adjusted to guarantee a perfectly positioned projection on the screen.

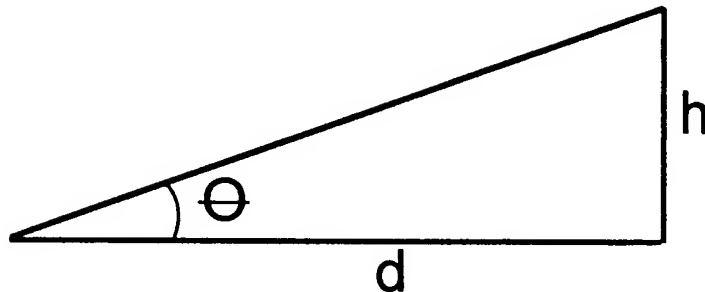
Figure B1

Figure B1

# Measurement Formula for 20/20 Vision (Figure A)

$$\tan \Theta = h/d$$

$$\tan 5' = h/6m; h = 8.73mm$$



## Digital Acuity Vision Testing Formula (DAVTF)

The digital minimum formula is:

**400:1 Contrast Sensitivity or >**

**@ 1° true rez visual acuity letters**

**@ min screen resolution of 1024x768 or >**

**4500K ambient light or >.**

$$\tan \Theta = h/d$$

$$\tan 5' = h/6m; h = 8.73mm$$

**400:1 > @ 1°TR**

**SR 1024 x 768 >/4500K>**

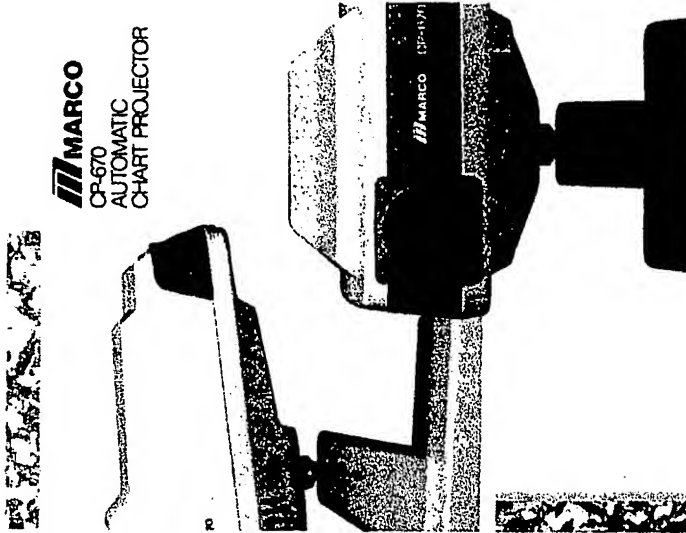


[illegible]

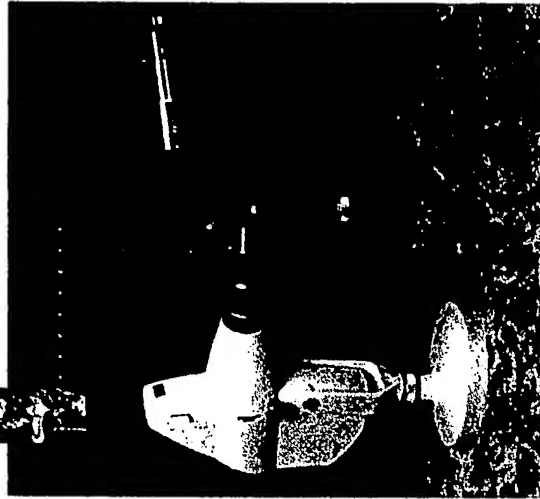
## CHART SAMPLES

[illegible]

**MARCO**  
CP-670  
AUTOMATIC  
CHART PROJECTOR



CHARL  
PROJECTORS



- [illegible]

Your choice of history is standard for standard education.

# MARCO

**Figure B2**



**Reichert**  
Ophthalmic Instruments  
A Division of Luitz Microsystems Inc.

[illegible]

**Figure B3**

Figure C

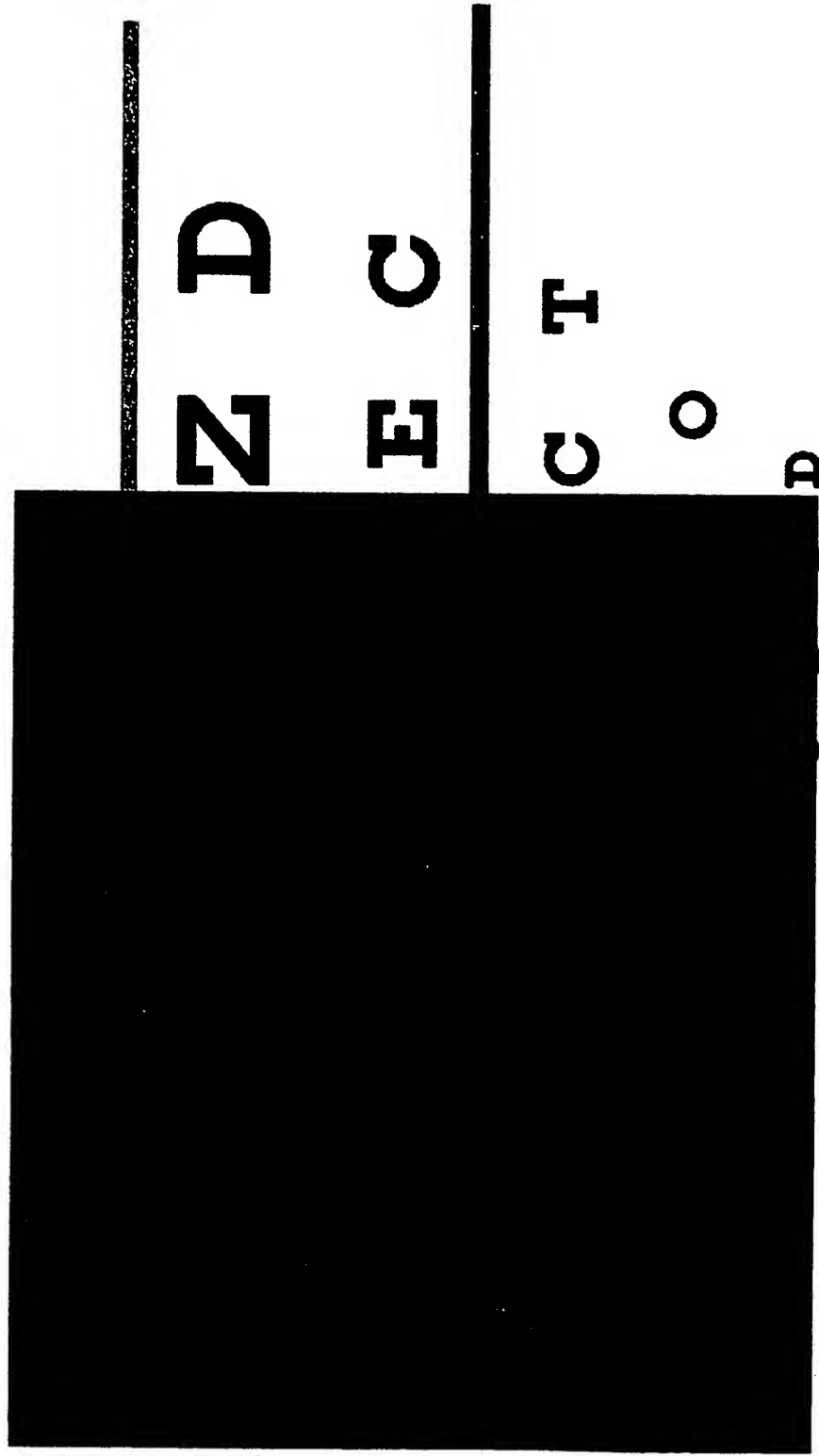


Figure C

# OBSERVATIONS

## Bulb Life

**Bulbs & Halogen Bulbs**

**Halogen Bulbs burn at 3000 - 3500K**

**Brightness of the bulb during its life**

**2 - 3 years - \$50 - \$550 Replacement**

## Room Lighting

**Silver Oxide (Gray) Screens**

**Contrast Lighting < 250:1**

**Room Lights 4000 - 6500K**

**Dim the room lights to see the screen**

## Slide Test

**Easy Access to different Slides**

**Damage due to wear and tear**

**Limited Number of Tests**

**Fuzzy Letter over any distance**

**No Color Screening**

**Winter Heater**

**Not Much Fun...**

**No Real World Lighting**

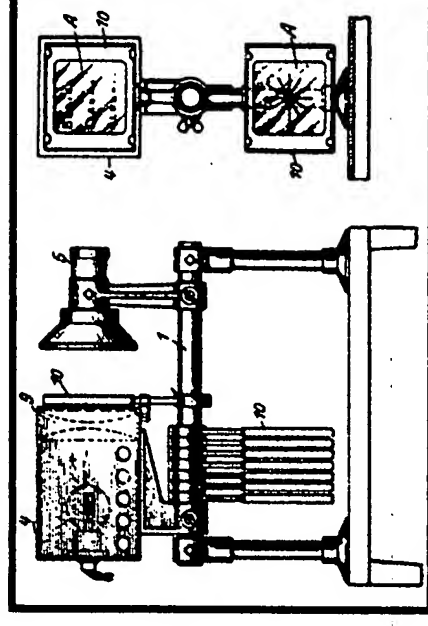


Figure E



## Compatible with: Windows , Mac OSX, RedHat Linux over TCP/IP, IXP/SPX and Apple Talk

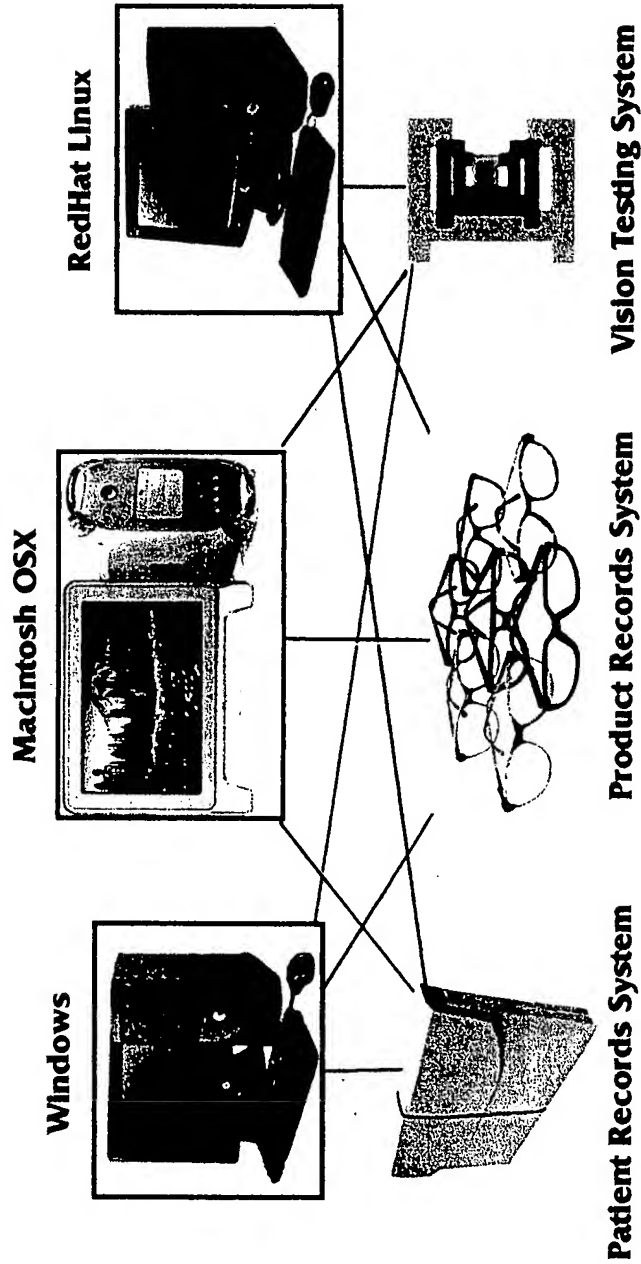


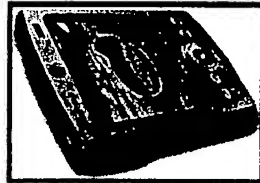
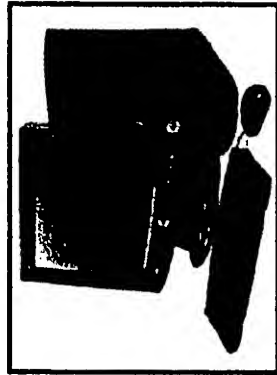
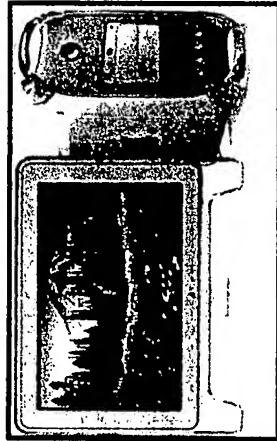
Figure E



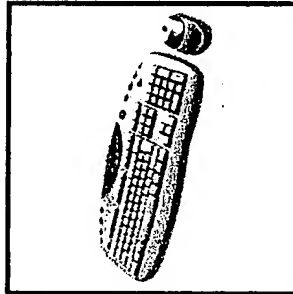
Figure F



**Optional**



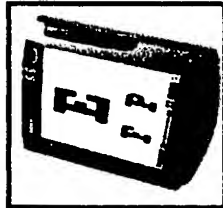
**PDA**



**Wireless  
Keyboard  
Mouse**



**Wireless  
Pointer  
Mouse**



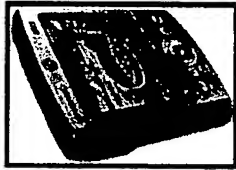
**PC  
Tablets**

Figure F

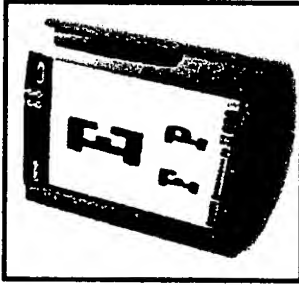


# More Doctors Tools

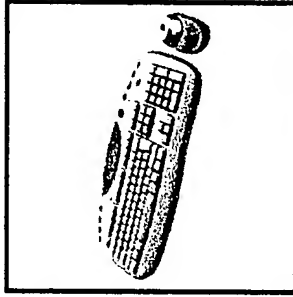
## Wireless Network



PDA



PC Tablets



Wireless Keyboard / Mouse

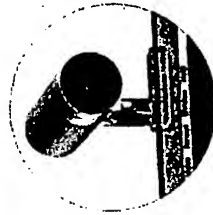


Wireless Pointer / Mouse

Access files

Access the Web

Check E-Mail



**iSight**

The eyes and ears of iChat AV.



Under Mac OS X

Using the  
AOL Buddy List

Internet Audio  
Phone Calls

Video conference  
iSight Web Cams

Figure H

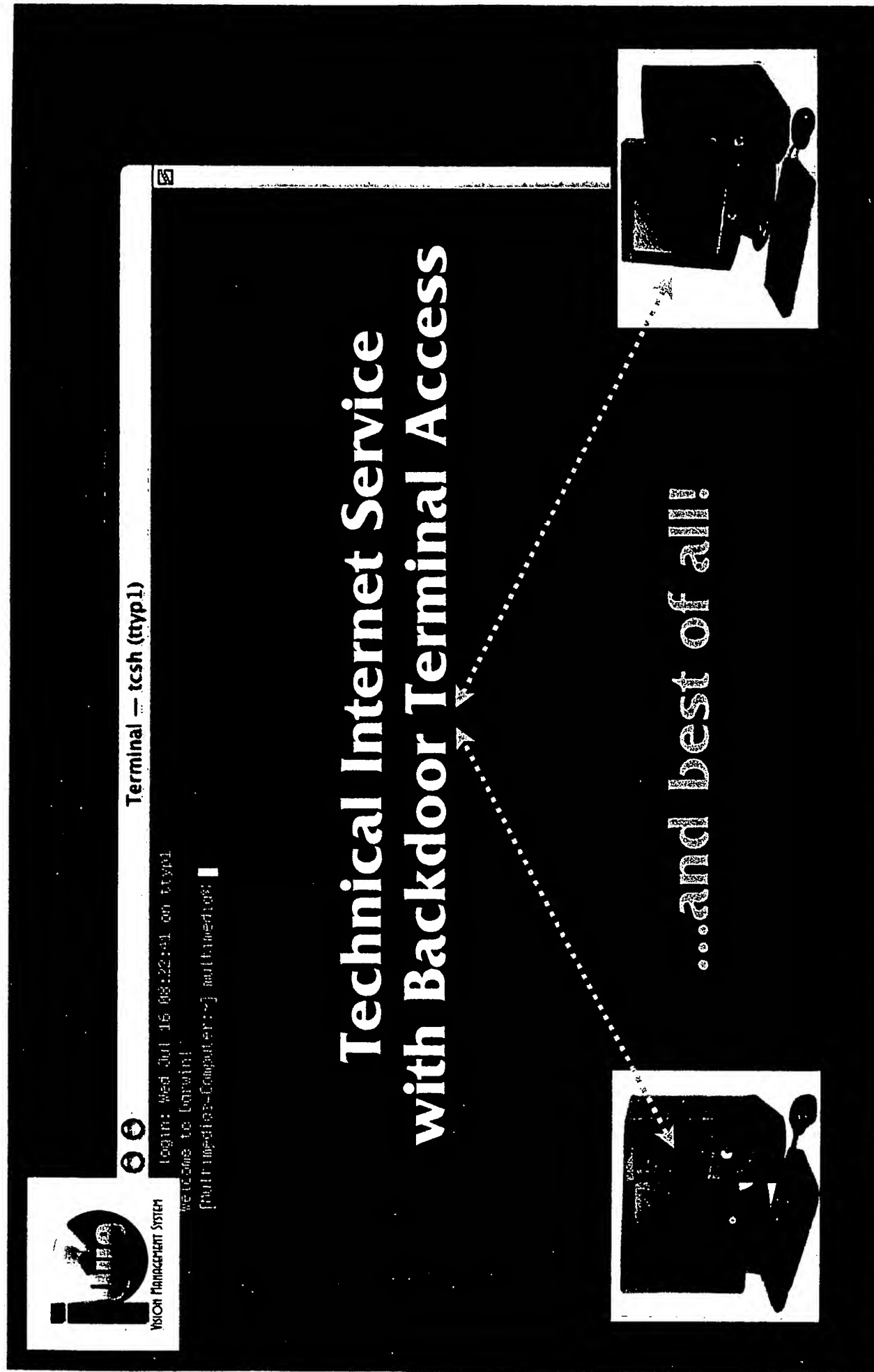
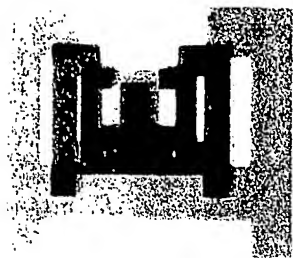


Figure H

Figure 1i



# Choice - Basic Menus



**Main Menu**

Educational    Instructional

**20/20 Animation**

Main Menu    20/20 Slides


**20/20 Slides**

Main Menu	20/20 Animation
Snellen	Instructional
Broken Wheel	
Clock Dial	
Numbers	
Tumbling E's	
4 Dot Test	
Dynamic Tools	
Phoria Testing	
Lea Optotype	
Allen Optotype	
Color Squares	
R&G Letters	
ISO Letters	
Fixation	
HTOV	

Dr. I.C. Mieux

Figure 1i

Figure 12



# Choice - Clinical Menus

**Solid Color**

*I.C. Mueix Eye Center*  
Dr. Your Name Here

*I.C. Mueix Eye Center*  
Dr. Your Name Here

*I.C. Mueix Eye Center*  
Dr. Your Name Here

**Gradient Color**

*I.C. Mueix Eye Center*  
Dr. Your Name Here

*I.C. Mueix Eye Center*  
Dr. Your Name Here

**Phoroptor S/G**

*I.C. Mueix Eye Center*  
Dr. Your Name Here

*I.C. Mueix Eye Center*  
Dr. Your Name Here

**Retina S/G**

*I.C. Mueix Eye Center*  
Dr. Your Name Here

*I.C. Mueix Eye Center*  
Dr. Your Name Here

- Clinic Name
- Doctors Name

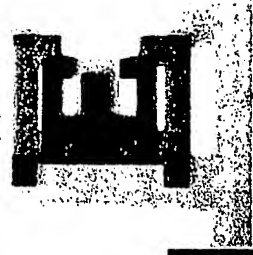
Figure 12

Figure 13



# Choice - Custom Menus

## PDF Proofing - Email



**I.C. Mueix Eye Center** 19100 V...  
**Dr. Samantha Sharp**  
Greenville  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides

**I.C. Mueix Eye Center** 19100 V...  
**Dr. Diane Lee**  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides

**I.C. Mueix Eye Center** 19100 V...  
**Dr. David Reynolds**  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides  
2020 Animation 2020 Slides

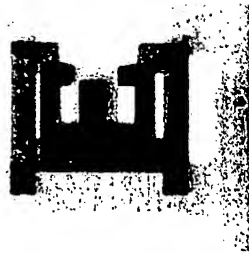
• Clinic Designs • Professional Designs • Personal Designs

Figure 13

Figure J

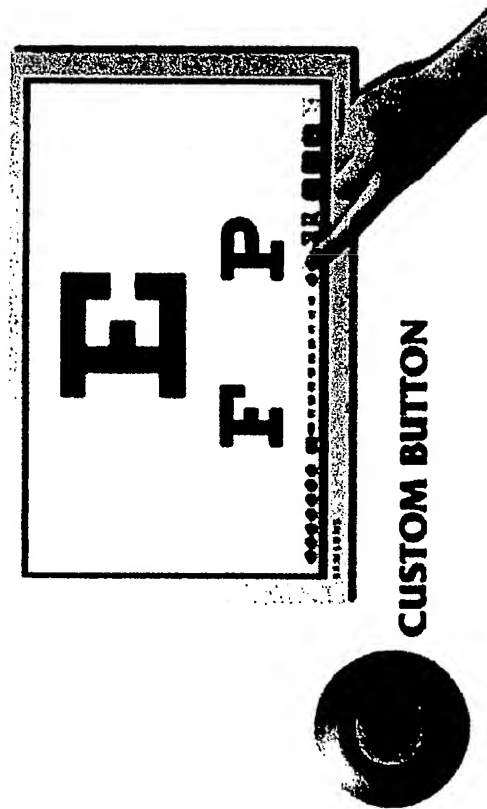


# Choice - Custom Button



**Doctor Orders!**  
**All-in-One**

**15 Slide Test**



Snellen • Lea Optotype  
Broken Wheel • Allen Optotype  
Clock Dial • Color Squares  
Numbers • R&G Letters  
Tumbling E's • ISO Letters  
4 Dot Test • Fixation  
Dyanmic Tools • HTOV  
Phoria Testing

**40>15 Snellen - HOTV 30>15 - Allen 40>20 - Tumbling E 70>15 - 4 Dot > close with R&G**

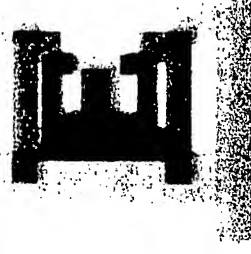
Figure J



Figure K



# iQue Vision Testing System



## 15 Slide Test

## 15 Animated Test

Snellen	Lea Optotype	Snellen	Lea Optotype
BrokenWheel	Allen Optotype	BrokenWheel	Allen Optotype
Clock Dial	Color Squares	Clock Dial	Color Squares
Numbers	R&G Letters	Numbers	R&G Letters
Tumbling E's	ISO Letters	Tumbling E's	ISO Letters
4 Dot Test	Fixation	4 Dot Test	Fixation
Dyanmic Tools	HTOV	Dyanmic Tools	HTOV
Phoria Testing		Phoria Testing	

**Snellen Test has 81 Slides - Over 300 tests**

Figure K

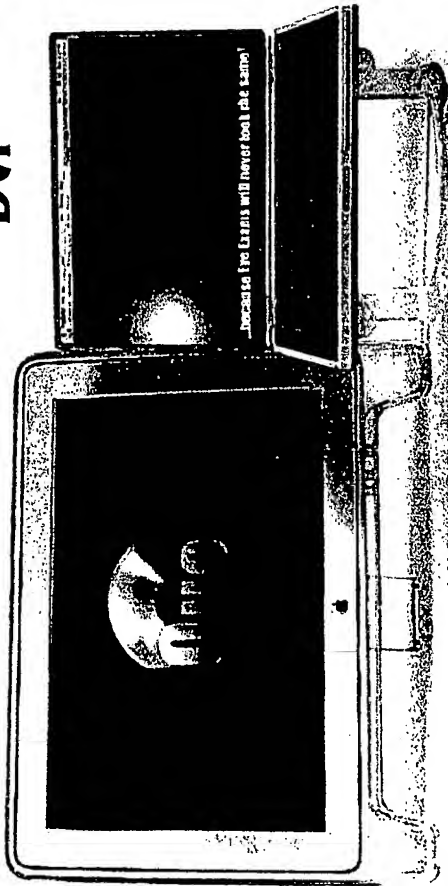
Figure L1



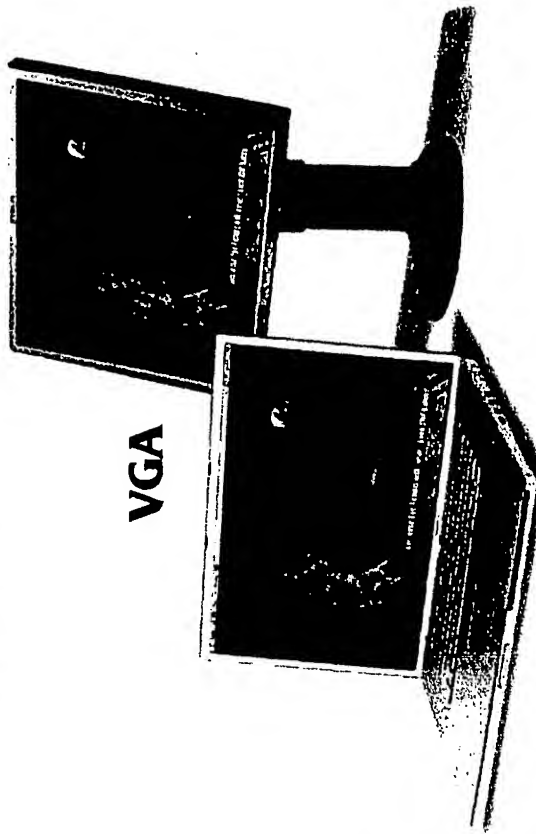
# Stand Alone Configuration



DVI



VGA



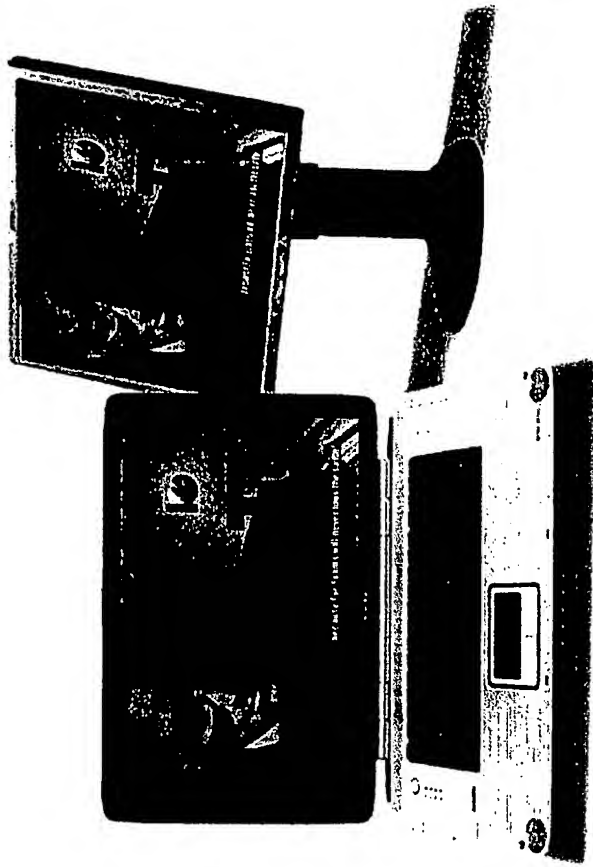
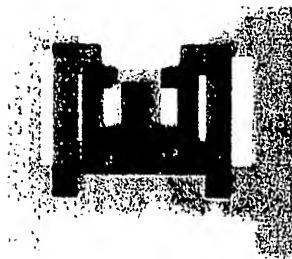
15" & 17" Apple Powerbook  
Touch Screen

Figure L1

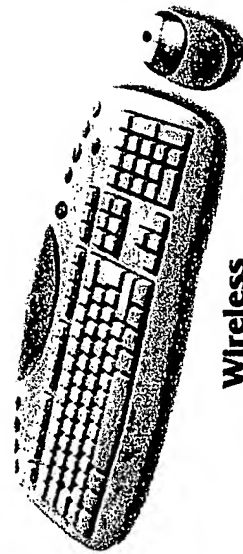
Figure L2



# PC Stand Alone Configuration



**Toshiba P25-S609 - 17"**



**Wireless  
Keyboard / Mouse**

Figure L2

Figure L3



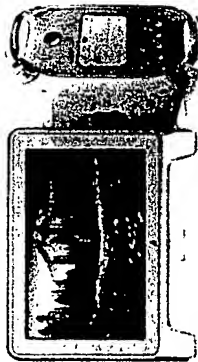
# Cross Platform with Server Connection



Patient / Admin Records



Vision Testing Side



Macintosh OSX



Windows OS



RedHat Linux

Choice of Platform or Existing System

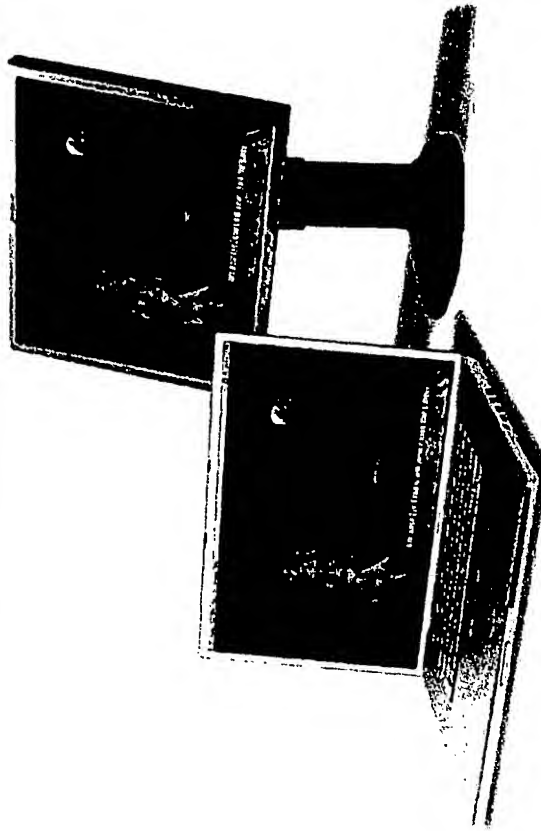


Figure L3

## A collage of various electronic devices including a mobile phone, a laptop, a PDA, a digital camera, a scanner, a printer, a fax machine, and a modem, all connected by a central line to a large oval containing the text '802.11g'. The devices are arranged around the central oval, which is the focal point of the advertisement. The background is white, and the devices are in various orientations, creating a sense of dynamic movement and connectivity. The overall theme is wireless networking technology, specifically 802.11g.

Figure Ls

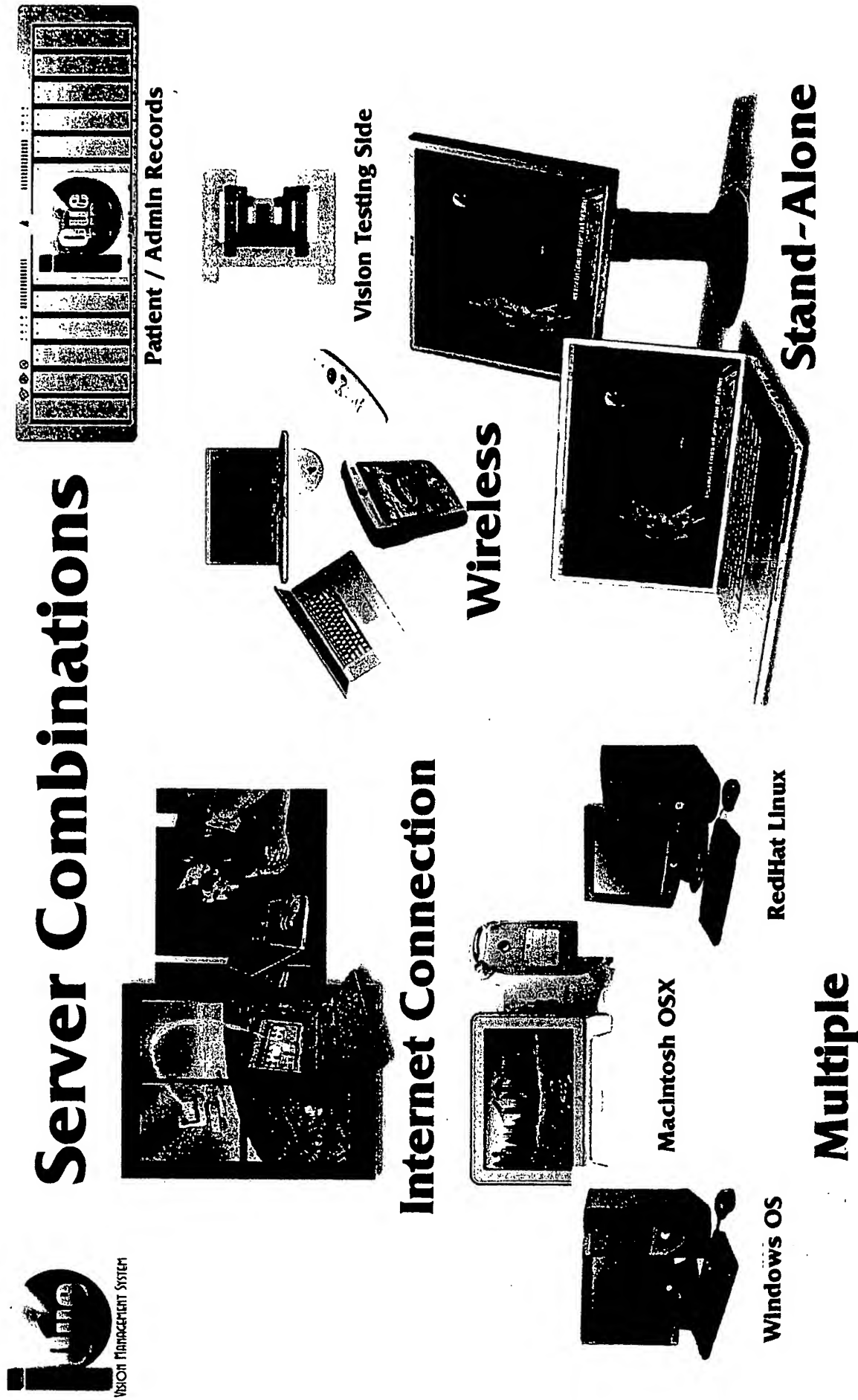
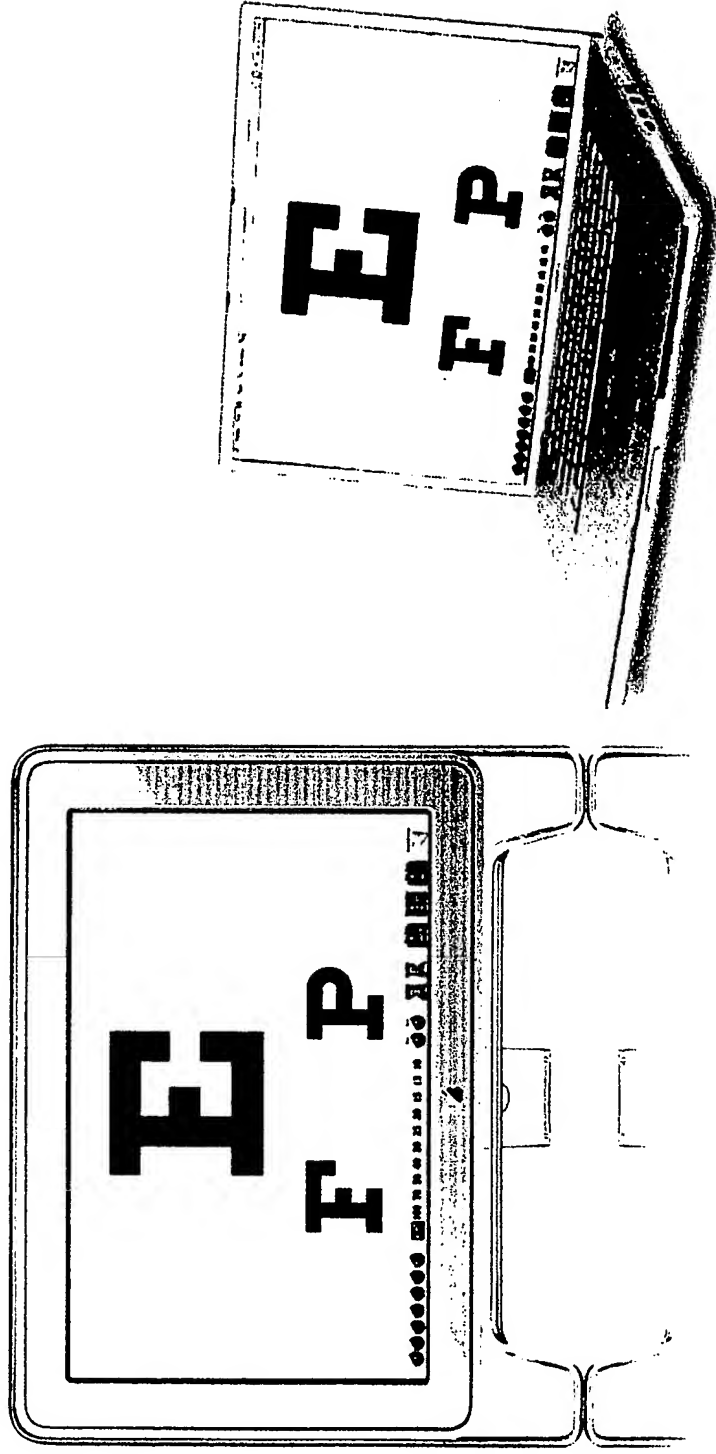


Figure Ls

Figure M1

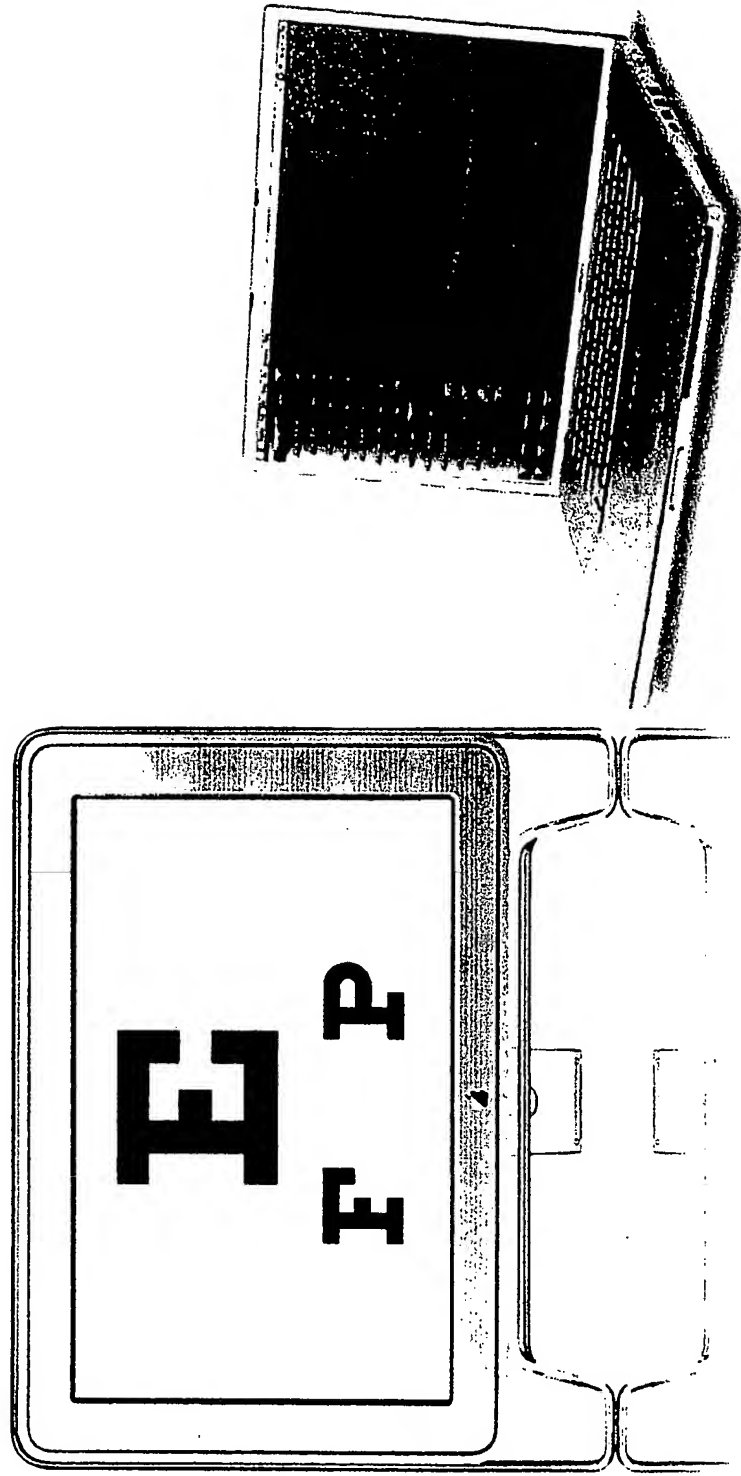


<<< **VGA** >>>

Figure M1



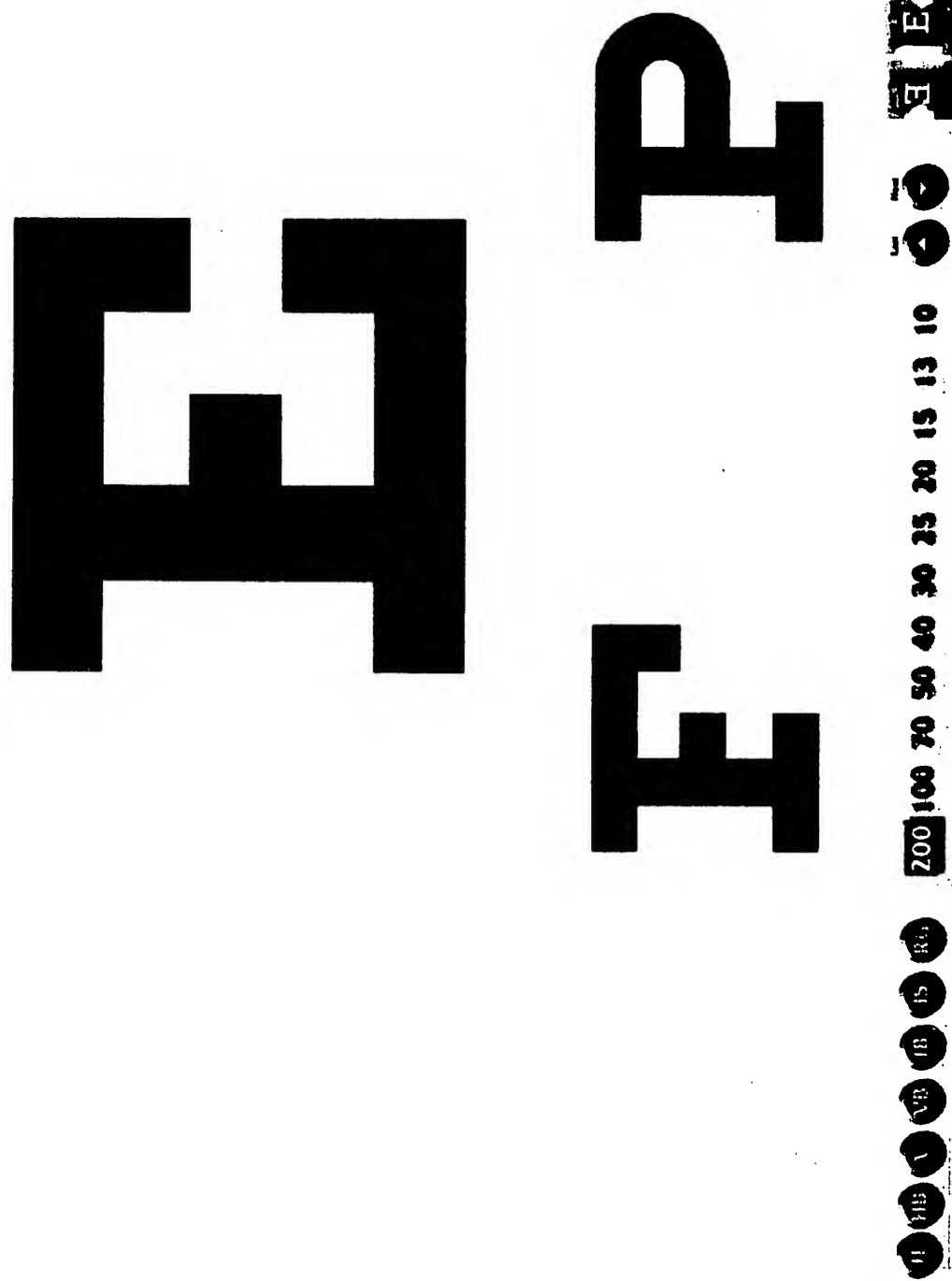
Figure M2



<<< DVI >>>

Figure M2

Figure N1



**Figure N1**

**Figure N2**

Figure N3

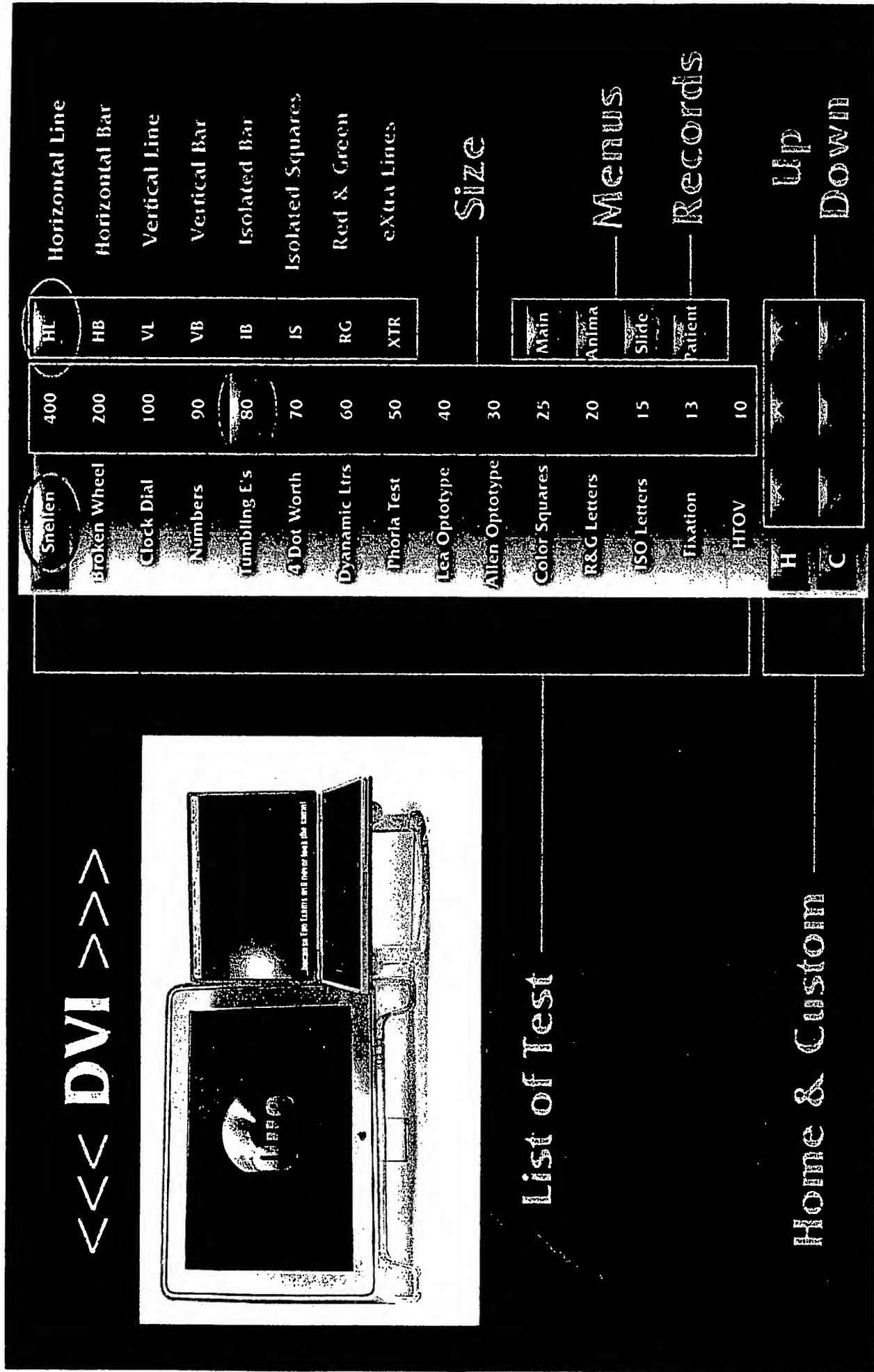
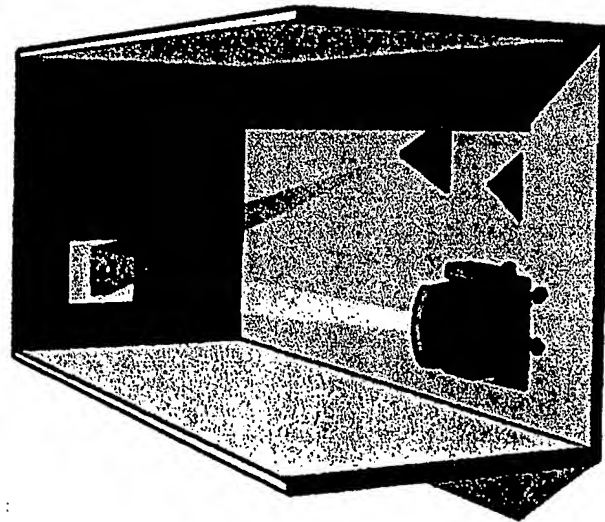


Figure N3

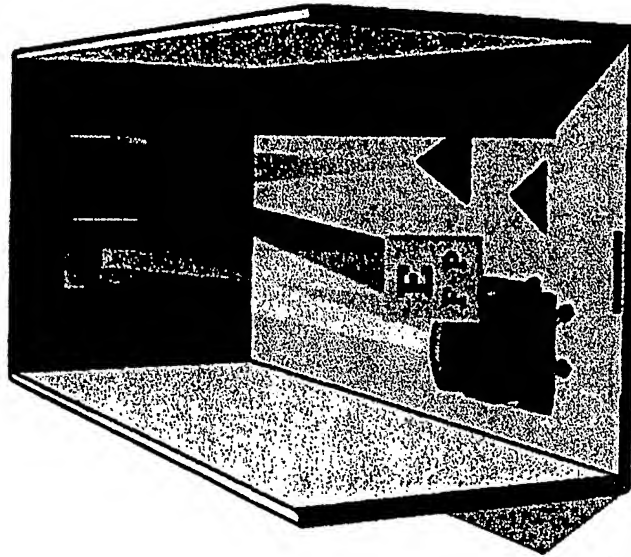
# Projection Systems vs iQue A/VTs

**Patients View vs Projection in a 20ft room**



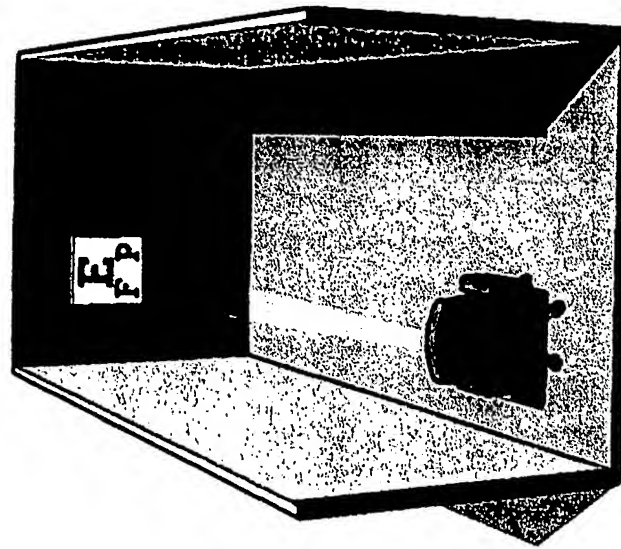
Since the late 1940's projection systems had to project an image less than one inch in size onto a silver-oxide screen some 20ft away. To help the patient see the optotypes OD's had to dim the lights - because the blubs in the projectors were not bright enough and the contrast level was below 250:1. Another issue that soon became apparent was the projected degree of angle, which distorts an image and results in a non-symmetrical trapezoidal-shapes in the optotypes.

**Patients View vs Projection in a 10ft Mirrored room**



Today, some 60 years later, nothing has really changed. This is a Projection system in a 10ft room built to simulate a 20ft room. This modified vision testing system is a great space saver. It uses two mirrors, one for the projector and one for the patient. Studing these angles on this focal plane the distortion for the optotypes would appear to be twice as bad. However, using a Halogen bulb you might reach 250:1 on the contrast level but the doctor would still have to dim the lights.

**Patients View with iQue Monitor Screen in a 10 or 20ft room**



Then there's the iQue Vision Testing system. Leave the lights on and experience real world testing. Using our "Digital" 20/20 formula minimum of 400:1 contrast you can position your patient directly in front of the screen. The system works in both the 10ft or 20ft configuration and gives them a distortion free view of all the optotypes. Strange, after 60 years one of the very first tools to be used by OD's is one of the last to be retrofitted for the 21st Century.